BRUHAT BANGALORE MAHANAGARA PALIKE

Project Division Yelahanka ZONE

NAME OF WORK Package-9 1. Improvement of drain at thirumenahalli village main road in ward no 05 byatarayanapura sub division.2) Improvement of road and drain at thirumenahalli junction to agrahara layout govt hospital in ward no05 byatarayanapura sub division 3)Improvement of roads and drain at chokkanahalli village main road cross road in ward no 05 byatarayanapura sub division 4) Improvement of roads and drain at muniendeyanagara main road and cross roads in ward no 05 byatarayanapura sub division 5) Improvement of roads and drain at sriraj layout main road and cross road in ward no 05 byatarayanapura sub division 6) Improvement of roads and drain at kogilu surrounding in ward no 05 byatarayanapura sub division 7)Improvement of roads and drain at agrahara village cross roads in ward no 05 byatarayanapura sub division 8) Improvement of roads and drain at agrahara layout kallappa reddy main road in ward no 05 byatarayanapura sub division

Measurement Sheet

3rd & Final Bill

Name of Agency: Sri. S.K. CHANDRA

Agreement No. BBMP/YNK/EE(Project)Agr No:200/2017-18 Dated:20-03-2018

SLNO	CHAINAGE / Land Mark	NO	L (m)	B1 (m)	B2 (m)	Avg B (m)	Avg D (m)	QTY	REMARKS
Item No. 1	Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications								
	Quantity vide first RA bill							686.83	Sqm
	Quantity vide Second RA bill							686.83	Sqm
							Total Quantity	**1373.66**	Sqm
							Deduct paid Quantity	**1373.66**	Sqm
							Quantity to be paid	**0.00**	
Item No. 2	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5								
	Not Executed								
Item No. 3	Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification								
	Quantity vide first RA bill							715.22	Cum
	Quantity vide Second RA bill							240.20	Cum
							Total Quantity	**955.42**	Cum
							Deduct paid Quantity	**955.42**	Cum
							Quantity to be paid	**0.00**	
Item No. 4	Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications								
							Quantity vide first RA bill	3379.55	Cum
							Quantity vide Second RA bill	1049.38	Cum
							Quantity vide pre-measurement sheet Page No-1 to 3	**1281.35**	Cum
							Total Quantity	**5710.28**	Cum
							Deduct paid Quantity	**4428.93**	Cum
							Quantity to be paid	**1281.35**	Cum

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Asst. Executive Engr.
Project Division
Yelahanka Zone

ITEM NO	CHAINAGE / Land Mark	NO	L (m)	B1 (m)	B2 (m)	Avg B (m)	Avg D (m)	QTY	REMARKS
	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications								
							Quantity vide first RA bill	2653.25	Cum
							Quantity vide Second RA bill	712.49	Cum
							Quantity vide pre-measurement sheet Page No-4 to 5	**875.92**	**Cum**
							Total Quantity	**4241.66**	**Cum**
							Deduct paid Quantity	**3365.74**	**Cum**
							Quantity to be paid	**875.92**	**Cum**
	Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM (rate including cleaning of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications								
							Quantity vide first RA bill	11381.56	Cum
							Quantity vide Second RA bill	3321.83	Cum
							Quantity vide pre-measurement sheet Page No-6	**1046.85**	**Cum**
							Total Quantity	**15750.24**	**Cum**
							Deduct paid Quantity	**14703.39**	**Cum**
							Quantity to be paid	**1046.85**	**Cum**
	Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm. heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HIRE of machineries complete as per specifications								
							Quantity vide first RA bill	15304.66	Cum
							Quantity vide Second RA bill	3321.83	Cum
							Quantity vide pre-measurement sheet Page No-7	**1046.85**	**Cum**
							Total Quantity	**19673.34**	**Cum**
							Deduct paid Quantity	**18626.49**	**Cum**
							Quantity to be paid	**1046.85**	**Cum**
	SORRD 04500-DT. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications.. MORTH Specification No. 507 - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen								
							Quantity vide first RA bill	196.15	Cum
							Quantity vide Second RA bill	102.19	Cum
							Quantity vide pre-measurement sheet Page No-8	**52.34**	**Cum**
							Total Quantity	**350.68**	**Cum**
							Deduct paid Quantity	**298.34**	**Cum**
							Quantity to be paid	**52.34**	**Cum**

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

SL NO	CHAINAGE / Land Mark		NO	L (m)	B1 (m)	B2 (m)	Avg B (m)	Avg D (m)	QTY	REMARKS
	Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications									
								Quantity vide first RA bill	455.26	Cum
								Quantity vide Second RA bill	132.87	Cum
			1	3.00	9.00	6.50	7.75	0.04	0.93	Bell mouth
			1	30.00	6.50	6.00	6.25	0.04	7.50	
			1	30.00	6.00	7.00	6.50	0.04	7.80	
			1	3.60	7.00	7.00	7.00	0.04	1.01	
			3	0.50			0.50	0.04	0.03	
			1	30.00	5.40	4.30	4.85	0.04	5.82	
			1	30.00	4.50	4.50	4.50	0.04	5.40	
			1	0.20	4.50	4.50	4.50	0.04	0.04	
			1	30.00	5.40	5.40	5.40	0.04	6.48	
			1	30.00	5.40	5.50	5.45	0.04	6.54	
			1	0.30	5.50	5.50	5.50	0.04	0.33	
								Total Quantity	630.00	Cum
								Deduct paid Quantity	588.13	Cum
								Quantity to be paid	41.87	Cum
	Providing and laying Thermoplastic compound 2 mm thick including reflectorising glass beads at 250 gm/sqm on surface. Thickness of 2 mm exclusive of surface applied glass beads as per IRC:35. The finished surface uniformed and free from streaks etc.,complete as per specifications									
								Quantity vide first RA bill	0.00	Sqm
								Quantity vide Second RA bill	592.94	Sqm
			2	3.00			0.10		0.60	Bell mouth
			2	30.00			0.10		6.00	
			2	30.00			0.10		6.00	
			2	3.60			0.10		0.72	
			2	30.00			0.10		6.00	
			2	30.00			0.10		6.00	
			2	0.20			0.10		0.04	
			2	30.00			0.10		6.00	
			2	30.00			0.10		6.00	
			2	1.50			0.10		0.30	
								Total Quantity	**630.60**	**Sqm**
								Deduct paid Quantity	**592.94**	**Sqm**
								Quantity to be paid	**37.66**	**Sqm**

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Asst. Executive
Project Di
Yelahanka Zone
Bangalore

SL NO	CHAINAGE / Land Mark	NO	L (m)	B1 (m)	B2 (m)	Avg B (m)	Avg D (m)	QTY	REMARKS
Item No. III	Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications								
							Quantity vide first RA bill	40.69	Cum
							Quantity vide Second RA bill	217.43	Cum
							Quantity vide **pre-measurement sheet Page No-9 to 10**	**361.78**	Cum
							Total Quantity	**619.90**	Cum
							Deduct paid Quantity	**258.12**	Cum
							Quantity to be paid	**361.78**	Cum
Item No. II	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfaces such as walls, any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification								
							Quantity vide first RA bill	894.98	Sqm
							Quantity vide Second RA bill	286.56	Sqm
							Total Quantity	1181.34	Sqm
							Deduct paid Quantity	1181.34	Sqm
							Quantity to be paid	**0.00**	Sqm
Item No. IV	Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @ 320 Kgs, with 20mm and down size graded granite metal coarse aggregates @0.878 cum and fine aggregates @ 0.459 cum, with mechanical mixer @ 1hr confirming to IS 9103-1999 Reaffirmed -2008, machine mixed, concrete laid in layres not exceeding 75 mm, thick vibrated for all works in foundation plinth and ground floor level for roof slabs, retaining walls, running walls, return walls, walls (any thickness) includng attached plasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain concrete (fill) etc. including cost of all materials, labour, HOM of machinery, curing complete as per specifications.								
							Quantity vide first RA bill	117.38	Sqm
							Quantity vide Second RA bill	37.61	Sqm
							Total Quantity	**154.99**	Sqm
							Deduct paid Quantity	**154.99**	Sqm
							Quantity to be paid	**0.00**	Sqm
Item No. IV	4.6.2: Providing TMT steel reinforcement Fe500 for R.C.C work including straightening, cutting, bending, bending, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3.								
							Quantity vide first RA bill	6.09	Sqm
							Quantity vide Second RA bill	2.02	Sqm
							Total Quantity	**8.11**	Sqm
							Deduct paid Quantity	**8.11**	Sqm
							Quantity to be paid	**0.00**	Sqm
Item No. V	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge								
							Quantity vide first RA bill	248.55	Sqm
							Quantity vide Second RA bill	73.89	Sqm
							Total Quantity	**322.44**	Sqm
							Deduct paid Quantity	**322.44**	Sqm
							Quantity to be paid	**0.00**	Sqm

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CHAINAGE / Land Mark		NO	L (m)	B1 (m)	B2 (m)	Avg B (m)	Avg D (m)	QTY	REMARKS
Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum									
road from kogilu main road to dead end, kogilu village									
0.00	30.00		1	30.00	3.30	3.70	3.50	0.15	15.75
30.00	35.30		1	5.30	4.60	4.00	4.30	0.15	3.42
35.30	39.30		1	4.00	6.50	6.50	6.50	0.15	3.90
39.30	69.30		1	30.00	5.50	4.30	4.90	0.15	22.05
69.30	99.30		1	30.00	4.30	4.50	4.40	0.15	19.80
99.30	129.30		1	30.00	4.50	4.90	4.70	0.15	21.15
129.30	159.30	30/3	1	30.00	4.90	4.85	4.88	0.15	21.94
159.30	189.30		1	30.00	4.85	4.89	4.87	0.15	21.92
189.30	216.80		1	27.50	4.89	4.80	4.85	0.15	19.99
road 1 near ladies tailor shop in kogilu village									
0.00	30.00		1	30.00	2.70	2.90	2.80	0.15	12.60
30.00	37.70		1	7.70	2.90	2.80	2.85	0.15	3.29
37.70	67.70		1	30.00	2.80	3.80	3.30	0.15	14.85
67.70	73.30		1	5.60	3.80	8.60	6.20	0.15	5.21
73.30	99.80		1	26.50	4.50	5.10	4.80	0.15	19.08
approch									
		30/3	1	7.10	4.30	5.00	4.65	0.15	4.95
village road									
0.00	2.00		1	2.00	2.30	4.50	3.40	0.15	1.02
2.00	13.60		1	11.60	4.50	4.60	4.55	0.15	7.92
13.60	43.60		1	30.00	4.60	3.30	3.95	0.15	17.78
43.60	73.60		1	30.00	3.30	3.80	3.55	0.15	15.98
73.60	103.60		1	30.00	3.80	4.20	4.00	0.15	18.00
103.60	133.60	30/3	1	30.00	4.20	3.30	3.75	0.15	16.88
133.60	150.40		1	16.80	3.30	3.20	3.25	0.15	8.19
Deduction									
		-3					1.13	0.15	-0.51
nattigenahalli									
0.00	13.00		1	13.00	4.80	5.10	4.95	0.15	9.65
13.00	22.50	Checked	1	9.50	5.10	10.20	7.65	0.15	10.90
22.50	45.50		1	23.00	4.50	4.40	4.45	0.15	15.35
45.50	75.50		1	30.00	4.40	4.50	4.45	0.15	20.03
75.50	105.50		1	30.00	4.50	3.60	4.05	0.15	18.23
105.50	114.30	30/3	1	8.80	3.60	3.60	3.60	0.15	4.75
114.30	130.10		1	15.80	2.00	2.00	2.00	0.15	4.74
approch									
			1	3.00			3.00	0.15	1.35

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SL.NO	CHAINAGE / Land Mark		NO	L (m)	B1 (m)	B2 (m)	Avg B (m)	Avg D (m)	QTY	REMARKS
Cr 2 kattigenahalli										
	0.00	22.30	1	22.30	2.80	2.80	2.80	0.15	9.37	
	Deduction									
			-1	0.60			0.60	0.15	-0.05	
Cr 3 kattigenahalli										
	0.00	30.00	1	30.00	4.70	4.80	4.75	0.15	21.38	
	30.00	60.00	1	30.00	4.80	4.80	4.80	0.15	21.60	
	60.00	75.80	1	15.80	4.80	4.70	4.75	0.15	11.26	
Cr 1 jai bhim nagar										
	0.00	30.00	1	30.00	4.20	3.80	4.00	0.15	18.00	
	30.00	60.00	1	30.00	4.50	3.40	3.95	0.15	17.78	
	60.00	88.40	1	28.40	3.40	4.40	3.90	0.15	16.61	
	Deduction									
			-3				1.13	0.15	-0.51	
Cr 2 jai bhim nagar										
	0.00	6.00	1	6.00	7.00	6.60	6.80	0.15	6.12	
	6.00	36.00	1	30.00	6.30	3.30	4.80	0.15	21.60	
	36.00	66.00	1	30.00	3.30	3.40	3.35	0.15	15.08	
	66.00	89.50	1	23.50	3.40	3.20	3.30	0.15	11.63	
	Deduction									
			-2				1.13	0.15	-0.34	
								Total Quantity	**549.64**	**Sqm**
								Deduct paid Quantity	**139.93**	**Sqm**
								Quantity to be paid	**409.71**	**Sqm**

Item No. 17 Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift

								Quantity vide first RA bill	0.00	Sqm
								Quantity vide Second RA bill	0.00	Sqm
Cross road from kogilu main road to dead end, kogilu village										
0.00	30.00	1	30.00	3.30	3.70	3.50			105.00	
30.00	35.30	1	5.30	4.60	4.00	4.30			22.79	
35.30	39.30	1	4.00	6.50	6.50	6.50			26.00	
39.30	69.30	1	30.00	5.50	4.30	4.90			147.00	
69.30	99.30	1	30.00	4.30	4.50	4.40			132.00	
99.30	129.30	1	30.00	4.50	4.90	4.70			141.00	
129.30	159.30	1	30.00	4.90	4.85	4.88			146.25	
159.30	189.30	1	30.00	4.85	4.89	4.87			146.10	
189.30	216.80	1	27.50	4.89	4.80	4.85			133.24	
cross road 1 near ladies tailor shop in kogilu village										
0.00	30.00	1	30.00	2.70	2.90	2.80			84.00	
30.00	37.70	1	7.70	2.90	2.80	2.85			21.95	
37.70	67.70	1	30.00	2.80	3.80	3.30			99.00	
67.70	73.30	1	5.60	3.80	8.60	6.20			34.72	
73.30	99.80	1	26.50	4.50	5.10	4.80			127.20	
approch										
		1	7.10	4.30	5.00	4.65			33.02	

30/3/19.

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Asst. Executive Engineer
Project Division
Yelahanka Zone

SNO	CHAINAGE Land Mark		NO	L (m)	B1 (m)	B2 (m)	Avg B (m)	Avg D (m)	QTY	REMARKS
Agrahara village road										
	0.00	2.00	1	2.00	2.30	4.50	3.40		6.80	
	2.00	13.60	1	11.60	4.50	4.60	4.55		52.78	
	13.60	43.60	1	30.00	4.60	3.30	3.95		118.50	
	43.60	73.60	1	30.00	3.30	3.80	3.55		106.50	
	73.60	103.60	1	30.00	3.80	4.20	4.00		120.00	
	103.60	133.60	1	30.00	4.20	3.30	3.75		112.50	
	133.60	150.40	1	16.80	3.30	3.20	3.25		54.60	
Chattigenahalli										
	0.00	13.00	1	13.00	4.80	5.10	4.95		64.35	
	13.00	22.50	1	9.50	5.10	10.20	7.65		72.68	
	22.50	45.50	1	23.00	4.50	4.40	4.45		102.35	
	45.50	75.50	1	30.00	4.40	4.50	4.45		133.50	
	75.50	105.50	1	30.00	4.50	3.60	4.05		121.50	
	105.50	114.30	1	8.80	3.60	3.60	3.60		31.68	
	114.30	130.10	1	15.80	2.00	2.00	2.00		31.60	
	approch									
			1	3.00			3.00		9.00	
Chattigenahalli										
	0.00	22.30	1	22.30	2.80	2.80	2.80		62.44	
	Deduction									
			-1	0.60			0.60		-0.36	
Chattigenahalli										
	0.00	30.00	1	30.00	4.70	4.80	4.75		142.50	
	30.00	60.00	1	30.00	4.80	4.80	4.80		144.00	
	60.00	75.80	1	15.80	4.80	4.70	4.75		75.05	
Jai bhim nagar										
	0.00	30.00	1	30.00	4.20	3.80	4.00		120.00	
	30.00	60.00	1	30.00	4.50	3.40	3.95		118.50	
	60.00	88.40	1	28.40	3.40	4.40	3.90		110.76	
	Deduction									
			-3				1.13		-3.39	
Jai bhim nagar										
	0.00	6.00	1	6.00	7.00	6.60	6.80		40.80	
	6.00	36.00	1	30.00	6.30	3.30	4.80		144.00	
	36.00	66.00	1	30.00	3.30	3.40	3.35		100.50	
	66.00	89.50	1	23.50	3.40	3.20	3.30		77.55	
	Deduction									
			-2				1.13		-2.26	
								Total Quantity	3667.68	Sqm
								Deduct paid Quantity	0.00	Sqm
								Quantity to be paid	3667.68	Sqm

Ksenudress JE
30/3/19.

30/3/19
Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

CHAINAGE / Land Mark	NO	L (m)	B1 (m)	B2 (m)	Avg B (m)	Avg D (m)	QTY	REMARKS
KSRRB M200-13.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry. cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications.-do- II. By Mechanical Means. A. Cement Concrete Grade M-15 & M-20.								
						Quantity vide first RA bill	- Nil -	Sqm
						Quantity vide Second RA bill	- Nil -	Sqm
						Quantity vide pre-measurement sheet Page No-11	**44.52**	**Cum**
						Total Quantity	44.52	**Sqm**
						Deduct paid Quantity	-	**Sqm**
						Quantity to be paid	**44.52**	**Sqm**
Providing and fixing pre cast solid cement concrete kerb stones made out of C.C. 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete.								
Not Executed								
Providing and applying ready mix priming coat over concrete / masonry / asbestos cement sheet / plastered surfaces including preparing the surface after thoroughly cleaning of oil, grease, dirt and other foreign matter, and sand papering including cost of materials, labour, complete as per specifications.								
Not Executed								
Providing and applying spray painting in two coats (excluding priming coat) over concrete / masonry i asbestos cement sheet / plastered surfaces with flat wall paint of approved brand to give even shade after cleaning the surface of all dirt, dust and other foreign matter, and sand papering including cost of materials, labour, complete as per specifications								
Not Executed								

S.K. Rao

Contractor Representative

Core Technologies Private Limited ARCADEZ

Consultant Representative

Asst Engineer 30/3/19.

Project Division Yelahanka ZONE , BBMP

Asst.Executive Engineer 30/3/19

Project Division Yelahanka ZONE , BBMP